

WHAT IS CLAIMED IS:

1. A data control apparatus comprising:

an extension devices interface to which a plurality of extension devices are connectable;

5 a recording media interface to which predetermined external recording media are detachably applied;

a rewritable program memory for a main body to store a control program of the main body;

10 a control means for controlling the respective devices and for processing input image data on the basis of the control program of the main body; and

an image control means to achieve control based on said control means for recording and outputting the image data which have been processed and outputting them to any one of said extension devices;

15 said extension devices interface including a control data communication means for transferring and receiving control data with said extension devices, and a down load exclusive communication means for down loading a control program of the extension device of said extension device.

20 2. A data control apparatus as claimed in claim 1, wherein said control means controls said image control means to transfer the control program stored in said external recording medium to said program memory for the main body when said external recording medium in which said control program of the main body is stored is applied to said recording
25 media interface , and

said control means controls said image control means to transfer the control program stored in said external recording medium through said

down load exclusive communication means to a program memory of corresponding said extension device when said external recording medium in which said control program of the extension device is stored is applied to said recording media interface.

- 5 3. An image forming apparatus comprising:
a readout control means to read out image of manuscript;
a writing control means to output the image on a recording paper;
and

10 a data control apparatus to make said readout control means
reading out the image of manuscript and to make said writing control
means recording and outputting the read out image,

said data control apparatus including

an extension devices interface to which a plurality of extension
devices are connectable,

15 a recording media interface to which predetermined external
recording media are detachably applied,

a rewritable program memory for a main body to store a control
program of the main body,

20 a control means for controlling the respective devices and for
processing input image data on the basis of the control program of the main
body, and

an image control means to achieve control based on the control of
said control means for recording and outputting the image data which have
been processed and outputting them to any one of said extension devices,

25 said extension devices interface having a control data
communication means for transferring and receiving control data with said
extension devices, and a down load exclusive communication means for

down loading a control program of the extension device of said extension devices.

4. An image forming apparatus as claimed in claim 3, wherein said control means controls said image control means to transfer the control program stored in said external recording medium to said program memory of the main body when said external recording medium in which said control program of the main body is stored is applied to said recording media interface, and

said control means controls said image control means to transfer the control program stored in said external recording medium through said down load exclusive communication means to a program memory of corresponding said extension device when said external recording medium in which said control program of the extension device is stored is applied to said recording media interface.

5. A data control method comprising the steps of:
overwriting a program of a main body registered in a program memory of the main body of a data control apparatus ;
down loading control programs of extension devices to a plurality of extension devices which are connected to an extension device interface of said data control apparatus;
transferring and receiving control data between said extension devices and said data control apparatus through control data communication means;
and
down loading said control program for the extension devices through down load exclusive communication means.

6. A data control method as claimed in claim 5, wherein said method comprises the steps of:

transferring the control program stored in said external recording medium to said program memory of the main body when an external recording medium in which said control program of the main body is stored is applied to said recording media interface of the data control apparatus;

5 and

transferring the control program stored in said external recording medium through said down load exclusive communication means to a program memory of corresponding said extension device when an external recording medium in which said control program of the extension device is stored is applied to said recording media interface of the data control apparatus.

7. A data control method as claimed in claim 5 or 6, wherein said control data communication means and said down load exclusive communication means are of asynchronous or synchronous serial communication.

8. A data control apparatus as claimed in claim 1 or 2, wherein said down load exclusive communication means transfers said control program of the extension device in the same communication method as said control data communication means.

9. A data control apparatus as claimed in claim 1 or 2, wherein said down load exclusive communication means is different from said control data communication means in at least one of the data transfer rate thereof or the data format thereof.

10. A data control method as claimed in claim 5, wherein said down load exclusive communication means is different from said control data communication means in at least one of the data transfer rate thereof or the data format thereof.

11. An image forming apparatus as claimed in claim 3 or 4, wherein said down load exclusive communication means transfers said control program of the extension device in the same communication method as said control data communication means.

5 12. An image forming apparatus as claimed in claim 3 or 4, wherein said down load exclusive communication means is different from said control data communication means in at least one of the data transfer rate thereof or the data format thereof.

10 13. A data control apparatus as claimed in claim 8, wherein said down load exclusive communication means is different from said control data communication means in at least one of the data transfer rate thereof or the data format thereof.

15 14. A data control apparatus as claimed in claim 1 or 2, wherein said control data communication means and said down load exclusive communication means are of asynchronous or synchronous serial communication:

20 15. An image forming apparatus according to claim 3 or 4, wherein said control data communication means and said down load exclusive communication means are of asynchronous or synchronous serial communication.